

No.

8300118



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Rogers Brothers Seed Co.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'Ivory'



Attest:

Kenneth D. ...
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D. C. this 30th day of April in the year of our Lord one thousand nine hundred and eighty-six.

Richard E. Lyng
Secretary of Agriculture



1856

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

FORM APPROVED: OMB NO. 0581-0005

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1. NAME OF APPLICANT(S) ROGERS BROTHERS SEED COMPANY		2. TEMPORARY DESIGNATION D-80152		3. VARIETY NAME IVORY	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O. BOX 80 357 C St., IDAHO FALLS, IDAHO 83402		5. PHONE (Include area code) (208) 522-0143		FOR OFFICIAL USE ONLY VPVO NUMBER 8300118	
6. GENUS AND SPECIES NAME PHASEOLUS VULGARIS		7. FAMILY NAME (Botanical) LEGUMINOSEAE		<div style="display: flex; flex-direction: column;"> <div style="margin-bottom: 10px;"> FILING DATE 5/2/83 TIME 8:00 <input checked="" type="checkbox"/> A.M. <input type="checkbox"/> P.M. </div> <div> FEES RECEIVED AMOUNT FOR FILING \$ 1,000 DATE 5/2/83 AMOUNT FOR CERTIFICATE \$ 500.⁰⁰ DATE March 24, 1986 </div> </div>	
8. KIND NAME DRY EDIBLE BEAN		9. DATE OF DETERMINATION 1976			
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) CORPORATION					
11. IF INCORPORATED, GIVE STATE OF INCORPORATION DELAWARE				12. DATE OF INCORPORATION FEBRUARY 25, 1975	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS CHARLES GREEN ROGERS BROTHERS SEED COMPANY P.O. BOX 80 IDAHO FALLS, IDAHO 83402					
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED					
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.) b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement </div> <div style="width: 48%;"> c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.) d. <input checked="" type="checkbox"/> Exhibit D, Additional Description of the Variety </div> </div>					
15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.)					
<input type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input checked="" type="checkbox"/> No					
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> Yes <input type="checkbox"/> No			17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input type="checkbox"/> Certified		
18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES? HOLLAND - NOV. 15, 1982 APPLICATION FILED					
<input checked="" type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input type="checkbox"/> No					
19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES? <div style="text-align: right;"> <input type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input checked="" type="checkbox"/> No </div>					
20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF APPLICANT 				DATE April 15, 1983	
SIGNATURE OF APPLICANT				DATE 1	

INSTRUCTIONS

General: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Department of Agriculture, Agricultural Marketing Service, Livestock, Meat, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

Item

- 9 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 14a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 14b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 14c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 14d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 15 If "Yes" is specified (*seed of this variety be sold by variety name only as a class of certified seed*) the applicant may **NOT** reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "No," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 16 See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

MAY
2 1983

DRY EDIBLE BEAN
"IVORY"

EXHIBIT A

ORIGIN AND BREEDING HISTORY

The Great Northern bean cultivar "Ivory" (tested as D80152) was derived from the selection of an early maturing plant out of a population of "Valley" Great Northern in the greenhouse during the Winter of 1975-76.

Details of selection and multiplication are as follows:

	<u>YEAR</u>	<u>GENERATION FROM SELECTION</u>	<u>FIELD NUMBER</u>	<u>BULK HARVEST</u>
Winter	1975-76	S ₁	Greenhouse	2 oz
Summer	1976	S ₂	D76-1642	14 oz
Summer	1978	S ₃	D78-2903	2# 8 oz
Summer	1979	S ₄	D79-2422	70#
Summer	1980	S ₅	D80-2754	1400#

Stock D80-2754 has been increased to commercial size quantities. This variety will be maintained through the procedure of pure line selection for stock seed.

The variety "Ivory" was stabilized at S₁ in 1976. "Ivory" has been observed to be stable and uniform for 6 generations since 1975. We have made no observations of any variants in the population.

DRY EDIBLE BEAN
"IVORY"

8300118

EXHIBIT B

NOVELTY STATEMENT

Our variety "Ivory" is most nearly like the Great Northern variety "Harris". "Ivory" differs from "Harris" in that "Ivory" matures earlier than "Harris". The average maturity difference between "Ivory" and "Harris" (at 10 different locations with as many different reporting cooperators) for the 1982 season was 4.5 days. Listed below are the cooperators, locations, and maturities reproduced from the "Report of The Cooperative Dry Bean Nurseries 1982" compiled by Dr. John J. Kolar, Research Agronomist, University of Idaho, Kimberly, Idaho 83341.

<u>LOCATION</u>	<u>COOPERATOR</u>	<u>DAYS TO MATURITY</u>	
		<u>"IVORY"</u>	<u>"HARRIS"</u>
Brooks, Alberta	Dr. Refe Gaudiel	107	113
Bow Island, Alberta	Dr. Refe Gaudiel	113	*120+
Sidney, Montana	Dr. Jerald Bergman	92	95
Prosser, Washington	Dr. Doug Burk	85	95
Kimberly, Idaho	Dr. John Kolar	90	96
Ft. Collins, Colorado	Dr. Don Wood	95	99
Scotts bluff, Nebraska	Dr. Dave Nuland	84	84
Tribune, Kansas	Dr. R.E. Gwin	98	98
Davis, California	Dr. Ken Foster	**40%	25%
Ordbend, California	Dr. Iver Johnson	<u>71</u>	<u>74</u>
	Average	92.7	97.2

** At Davis: % mature pods at 70 days.

* At Bow Island: The variety Harris still not mature at 120 days.

MAY 2 1983

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GREAT NORTHERN 'IVORY'
EXHIBIT B SUPPLEMENT CONT.

January 1985

Cooperative Dry Bean Nursery 1982

	<u>'Ivory'</u>	<u>'Harris'</u>	<u>'Ivory'</u> Days Earlier Than 'Harris'
Brooks, Alberta	107	113	6
Bow Island, Alberta	113	120*	7
Sidney, Montana	92	95	3
Prosser, Washington	85	95	10
Kimberly, Idaho	90	96	6
Ft. Collins, Colorado	95	99	4
Scotts Bluff, Nebraska	84	84	0
Tribune, Kansas	98	98	0
Davis, California**	40%	25%	
Ordberd, California	<u>71</u>	<u>74</u>	<u>3</u>
	92.8	97.1	4.3

*At Bow Island, Alberta, the variety 'Harris' was still not mature in 120 days.

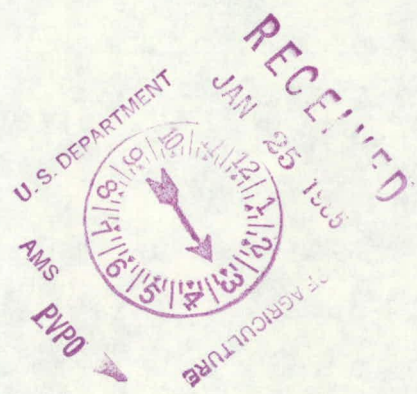
**At Davis, California: Percent mature pods at 70 days.
Excluded from statistical analysis.

95% confident that 'Ivory' is 1.8 to 6.8 days earlier than 'Harris'.

1-21-85

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GREAT NORTHERN 'IVORY'

EXHIBIT B SUPPLEMENT

January 1985

I have already sent to you a maturity comparison between 'Ivory' and 'Harris' for the 1982 season at ten locations. You felt the data I sent was insufficient so below I have listed the maturity from the cooperative Dry Bean Nursery again, only for 1983. I have also listed the data for 1984 for the University of Nebraska plots as well as the Kelly Bean plot, both at Scotts Bluff, Nebraska.

Cooperative Dry Bean Nursery 1983

	Days to Maturity		'Ivory' Days Earlier Than 'Harris'
	<u>'Ivory'</u>	<u>'Harris'</u>	
Lamberton, Minnesota	96	103	7
Brooks, Alberta	102	111	9
Sidney, Missouri	103	118	15
Saginaw, Michigan	85	94	9
Ft. Collins, Colorado	95	98	3
Scotts Bluff, Nebraska	79	84	5
Powell, Wyoming	93	107	14
Prosser, Washington	85	95	10
Twin Falls, Idaho	<u>91</u>	<u>95</u>	<u>4</u>
	92.5	100.6	8.4

The T test gives us a 95% confidence interval showing that we have this confidence that 'Ivory' is between 5.2 and 11.6 days earlier than 'Harris'.

UNIVERSITY OF NEBRASKA & KELLY BEAN 1984

	Days To Maturity	
	<u>'Ivory'</u>	<u>'Harris'</u>
University of Nebraska, Scotts Bluff, Nebraska	83	89
Kelly Bean - Average Of Four Nebraska Locations	87.5	97.5

8/1/08



U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Bean)

OBJECTIVE DESCRIPTION OF VARIETY
BEAN (*Phaseolus vulgaris* L.)

NAME OF APPLICANT(S) ROGERS BROTHERS SEED COMPANY	FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O. BOX 80 357 C STREET IDAHO FALLS, IDAHO 83402	PVPO NUMBER 8300118
	VARIETY NAME OR TEMPORARY DESIGNATION "IVORY"

Place numbers in the boxes (e.g.) for the characters that best describe this variety. Measured data should be for SPACED PLANTS. Ranges may also be given. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: IDAHO. The location of test area is TWIN FALLS,
IDAHO. Please answer questions appropriate for your variety if the information is available.

1. TYPE:

1 = Field (dry-edible) 2 = Garden

2. MARKET MATURITY: 2 YR AVE.

Days to edible pods Days to green shells

Days to dry seeds PHYSIOLOGICAL MATURITY (90% PODS BUCKSKIN)

Heat units to edible pods Heat units to green shells

Heat units to dry seeds

No. days earlier than

..... Same as ..

No. days later than

1 = Tendercrop
3 = Kinghorn Wax
5 = Michelite 62
7 = Bush Blue Lake 290

2 = Kentucky Wonder
4 = White Kidney
6 = Dwarf Horticultural
8 = Other (specify below)

GREAT NORTHERN UI59

3. PLANT:

1 = Determinate 2 = Indeterminate

cm height 15"

cm shorter than

Same as ..

comparison variety from above

cm taller than

cm spread 26"

Number primary branches near base

cm narrower than

width same as ...

comparison variety from above

cm wider than

Main stalk: 1 = brittle 2 = wirey

1 = stout 2 = thin

6

8. SEED SHAPE AND SIZE: (Cont'd)

☐ 2 1 = truncate ends 2 = rounded ends

☐ 2 ☐ 9 gm/100 seed

☐ ☐ gm/100 seed lighter than ☐
☐ gm/100 seed same as ☐
☐ ☐ 2 gm/100 seed heavier than ☐ 8

comparison variety from page one

9. ANTHOCYANIN: (1 = absent 2 = present)

☐ 1 Flowers

☐ 1 Stems

☐ 1 Pods

☐ 1 Seeds

☐ 1 Leaves

10. DISEASE RESISTANCE (0 = not tested 1 = susceptible 2 = resistant):

☐ 0 Anthracnose (specify race below)

☐ 0 Fuscos blight

☐ 0 Rust (specify race below)

☐ 0 Red node virus

☐ 0 Powdery mildew

☐ 0 Pod mottle virus

☐ 0 Fusarium root rot

☐ 2 Bean common mosaic virus (specify strain below)
BV1 & NY15

☐ 0 Pythium root rot

☐ Mosaic mottle

☐ 0 Rhizoctonia root rot

☐ Black root

☐ 0 Pythium wilt

☐ Bean yellow mosaic virus

☐ 0 Angular leaf spot

☐ Curly top

☐ 0 Bacterial wilt

☐ 2 Other (specify below)
COMMON BLIGHT ISOLATES EP-1K11,
XP-816 & XP-U2 FROM NEBRASKA

☐ 0 Halo blight (specify race below)

11. INSECT RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)

☐ 0 Aphids

☐ 0 Root knot nematode

☐ 0 Leaf hopper

☐ 0 Seed corn maggot

☐ 0 Lygus

☐ 0 Thrips

☐ 0 Pod borer

☐ 0 Weavils

☐ Other (specify below)

12. PHYSIOLOGICAL RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)

☐ 0 Heat

☐ 0 Cold

☐ 0 Drought

☐ 0 Air pollution

13. COMMENTS:

SIDE VIEW OF SEED IS SOMEWHAT BETWEEN OVAL TO OBLONG AND RENIFORM, BUT CLOSER TO THE OVAL TO OBLONG CATEGORY.

DRY EDIBLE BEAN
"IVORY"

EXHIBIT D

BOTANICAL DESCRIPTION

Great Northern "Ivory" is early maturing and has a short vine with open foliage. In Twin Falls, Idaho, it matures uniformly in 82 days (compared to UI59 at 88 days), and yields well. "Ivory" has resistance to the BV-1 and NY-15 strains of bean common mosaic virus and tolerance to both common and Halo Blight. In Southern Idaho, "Ivory" has out yielded UI59 by an average of 650 pounds/acre over the past 3 years. This variety is very suitable for rich fertile soils where the more indeterminate varieties may produce too much vine. The seed size of "Ivory" is 1500 seed/lb., the same as UI59. This variety is most nearly like "Harris", but is more uniform in vine type and maturity. "Ivory" is 3 days earlier in maturity than "Harris" in Twin Falls. In the past 2 years, "Ivory" has out yielded "Harris" by an average of 275#/acre in Twin Falls, Idaho.

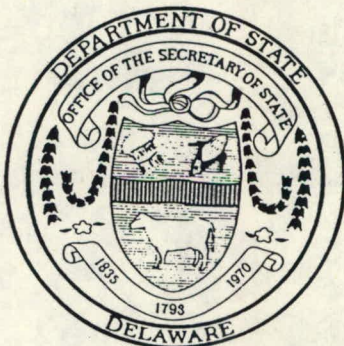
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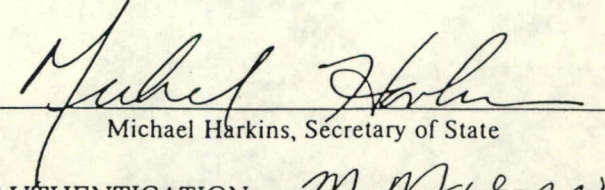
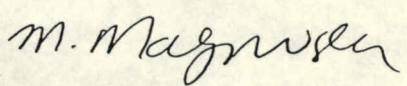
State of Delaware



Office of Secretary of State

I, MICHAEL HARKINS, SECRETARY OF STATE OF THE STATE OF DELAWARE
DO HEREBY CERTIFY THAT "ROGERS BROTHERS SEED COMPANY", FILED A
CERTIFICATE OF AMENDMENT, CHANGING ITS CORPORATE TITLE TO "ROGERS
NK SEED CO.", ON THE TWENTY-SIXTH DAY OF DECEMBER, A.D. 1990, AT 10:01
O'CLOCK A.M.




Michael Harkins, Secretary of State
AUTHENTICATION: 
DATE: 10/08/1991

AMENDED
STATEMENT AND DESIGNATION
BY
FOREIGN CORPORATION

DO NOT WRITE IN THIS SPACE

ROGERS NK SEED CO.

_____, a corporation
organized and existing under the laws of Delaware,
and which is presently qualified for the transaction of intrastate business in the
State of California, makes the following statements and/or designation:

That the name of the corporation has been changed to that hereinabove set forth
and that the name relinquished at the time of such change was _____

ROGERS BROTHERS SEED COMPANY

ROGERS NK SEED CO.
(Name of Corporation)

William B. Albers
(Signature of corporate officer)

William B. Albers, President
(Typed name and title of officer signing)

INSTRUCTIONS:

1. If this Amended Statement shows a change of corporate name, there must be attached to this Amended Statement a certificate of an authorized public official of the state or place of incorporation, that such change of name was made in accordance with the laws of that state or place.
2. For filing this Amended Statement there is a fee of \$15.00.

State of Delaware
Office of the Secretary of State

PAGE 1

I, WILLIAM T. QUILLEN, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THAT THE SAID "ROGERS NK SEED CO.", FILED A CERTIFICATE OF AMENDMENT, CHANGING ITS NAME TO "ROGERS SEED CO.", THE FIFTH DAY OF MAY, A.D. 1994, AT 9 O'CLOCK A.M.



William T. Quillen
William T. Quillen, Secretary of State

0810041 8320

AUTHENTICATION: 7120759

DATE: 05 16 94

13

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
ROGERS NK SEED CO.

Adopted in accordance with the provisions
of Section 242 of the General Corporation
Law of the State of Delaware

EFFECTIVE DATE: June 1, 1994

We, Willem van Overschot, President, and Richard B. Geller, Secretary, of Rogers NK Seed Co., a corporation existing under the laws of the State of Delaware, do hereby certify as follows:

FIRST: The Certificate of Incorporation of the corporation was filed on 2/27/75.

SECOND: The Certificate of Incorporation of said corporation has been amended as follows:

By striking out the whole of Article I thereof as it now exists and inserting in lieu and instead thereof, a new Article I, reading as follows:

ARTICLE I

Name

The name of the Corporation is ROGERS SEED CO.

THIRD: Such amendment has been duly adopted in accordance with the provisions of the General Corporation Law of the State of Delaware, by the unanimous written consent of all of the stockholders entitled to vote in accordance with the provisions of Section 228 of the General Corporation Law of the State of Delaware.

FOURTH: See attached Written Consent of Sole Shareholder and Board of Directors' Resolution.

IN WITNESS WHEREOF, we have signed this certificate this 13th day of April, 1994.

Willem van Overschot
Willem van Overschot, President

Richard B. Geller
Richard B. Geller, Secretary

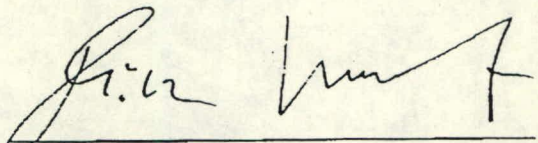
ROGERS NK SEED CO.

WRITTEN CONSENT OF SOLE SHAREHOLDER

SANDOZ CORPORATION, owner of all of the issued and outstanding shares of ROGERS NK SEED CO., hereby consents, pursuant to Section 228 of the Delaware General Corporation Law, to the adoption of the following resolution as and for the act of the shareholder:

RESOLVED, that SANDOZ CORPORATION, as sole shareholder, approves the amendment to Article I of the Certificate of Incorporation of ROGERS NK SEED CO., changing its name to **ROGERS SEED CO.**

Dated: April 22, 1994


Heinz P. Imhof,
Chief Executive Officer
Sandoz Corporation

100 10 31

01

ROGERS NK SEED CO.

RESOLUTION

RESOLVED, that according to Section 242 of the General Corporation Law of the State of Delaware, that Article I of the Certificate of Incorporation be amended, effective June 1, 1994, to read as follows: The name of the Corporation is **ROGERS SEED CO.**; and, further,

RESOLVED, that the appropriate officers of Rogers NK Seed Co. be, and they hereby are, authorized to take any and all further action and execute and deliver any and all further documents that may be necessary or desirable in order to carry out and effectuate fully the purposes set forth in the foregoing resolution.

ADOPTED UNANIMOUSLY BY THE BOARD
MARCH 31, 1994

Richard B. Geller
Richard B. Geller, Secretary

State of Delaware
Office of the Secretary of State PAGE 1

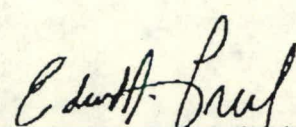
I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"ROGERS SEED CO.", A DELAWARE CORPORATION,
WITH AND INTO "NOVARTIS SEEDS, INC." UNDER THE NAME OF
"NOVARTIS SEEDS, INC.", A CORPORATION ORGANIZED AND EXISTING
UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED
IN THIS OFFICE THE TWENTY-FIFTH DAY OF JUNE, A.D. 1997, AT 9
O'CLOCK A.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO
THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.



0829320 8100M
971211787


Edward J. Freel, Secretary of State

AUTHENTICATION: 8531908
06-26-97

DATE:

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 09:00 AM 06/25/1997
971211767 - 0829320

**CERTIFICATE OF MERGER
OF
ROGERS SEED CO.
INTO
NOVARTIS SEEDS, INC.**

The undersigned corporation organized and existing under and by virtue of the General Corporation Law of Delaware,

DOES HEREBY CERTIFY:

FIRST: That the name and state of incorporation of each on the constituent corporations of the merger is as follows:

NAME

STATE OF INCORPORATION

Novartis Seeds, Inc.
Rogers Seed Co.

Delaware
Delaware

SECOND: That an Agreement and Plan of Merger between the parties to the merger has been approved, adopted, certified, executed and acknowledged by each of the constituent corporations in accordance with the requirements of section 251 of the General Corporation Law of Delaware

THIRD: That the name of the surviving corporation is Novartis Seeds, Inc.

FOURTH: That the Certificate of Incorporation of Novartis Seeds, Inc., a Delaware corporation which will survive the merger, shall be the Certificate of Incorporation of the surviving corporation.

FIFTH: That the executed Agreement and Plan of Merger is on file at the principal place of business of the surviving corporation, the address of which is 7500 Olson Memorial Highway, Golden Valley, MN 55427.

SIXTH: That a copy of the Agreement and Plan of Merger will be furnished by the surviving corporation, on request and without cost, to any stockholder of any constituent corporation.

SEVENTH: That this Certificate of Merger shall be effective on July 1, 1997.

Dated June 23, 1997

NOVARTIS SEEDS, INC.

By: 

Name: Edward C. Resler

Title: Vice President & General Counsel

